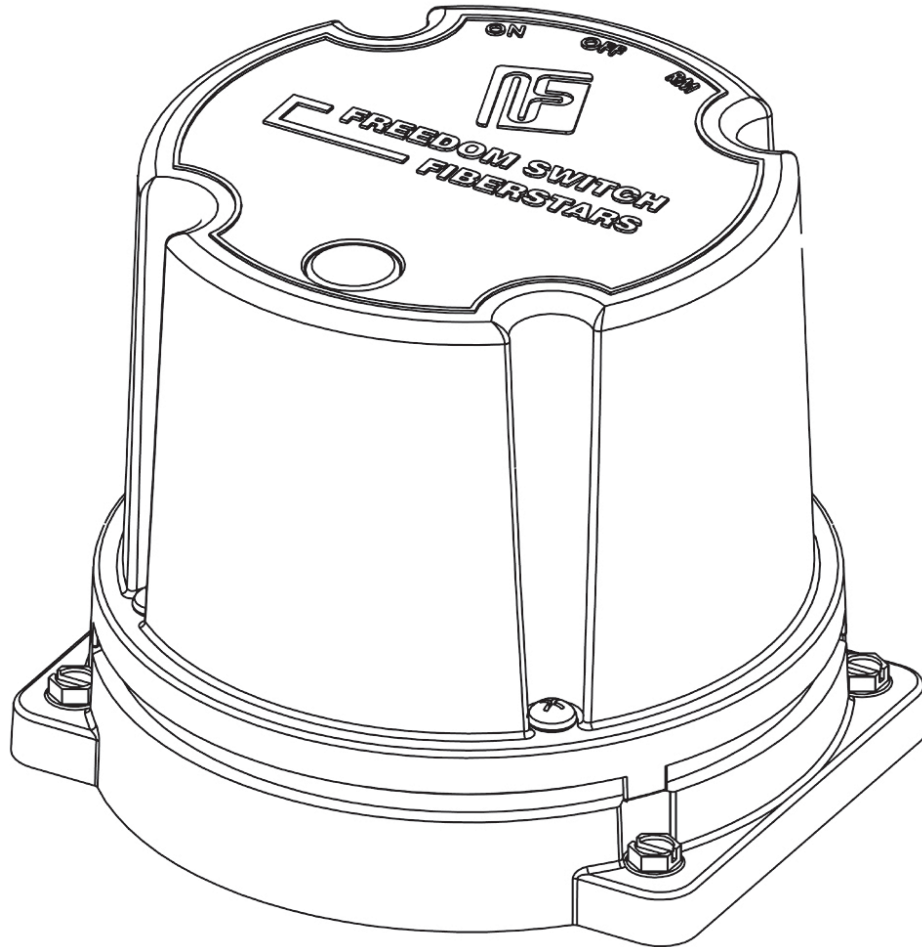


FDS / FDS-R / FDS-PS

USER MANUAL



For use with 120V 60Hz input.
Output is 120V 60Hz at 5amps 600W MAX. switched.

ETL LISTED
Conforms to UL STD 1241



3091594

IMPORTANT SAFETY INFORMATION

Basic safety precautions should be observed.

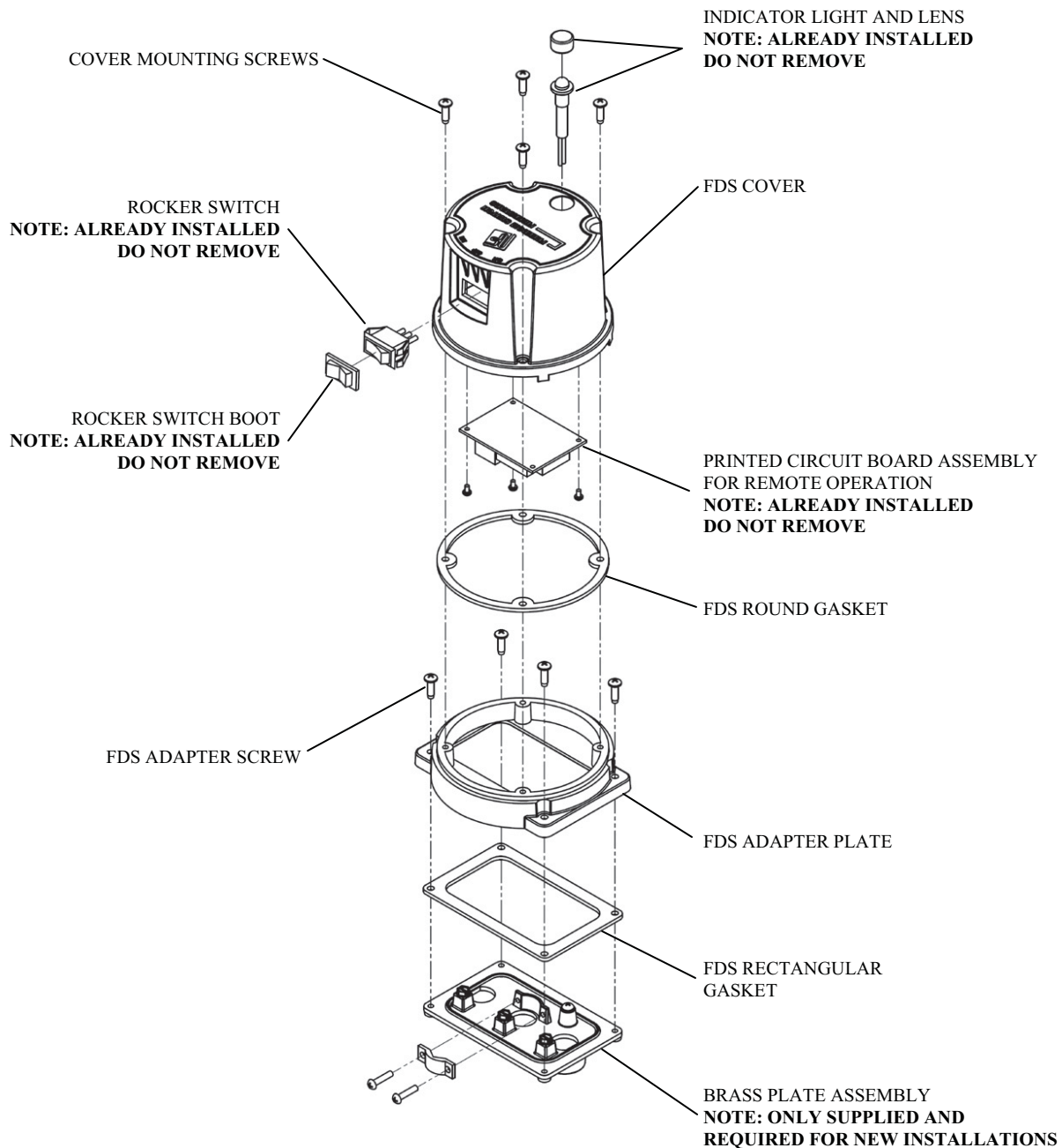
1. Ensure that incoming power is DISCONNECTED at the circuit breaker BEFORE any electrical work is performed.
2. A qualified electrician must install the FDS in accordance with all applicable National and Local Electrical Codes.
3. Ensure that all lights to be connected to the FDS conform to the National Electrical Code (NEC) and all local codes and ordinances prior to connecting to the lights to the FDS.
4. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
5. The lighting circuit must have a Ground-Fault Circuit Interrupter (GFCI), and an appropriately rated circuit breaker.
6. The FDS must be mounted at a minimum horizontally of 48" from edge of water, 8" minimum vertically above water level, and 4" minimum from the deck.
7. The Light fixture and all metal items within five (5) feet of the pool, including this FDS, must be properly electrically bonded.
8. This device should never operate an equipment that could cause property damage, bodily injury, or death should it be activated unexpectedly.
9. Never allow children to operate the FDS unsupervised.

FCC WARNING

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by Fiberstars Inc. could void the user's authority to operate the equipment.

INSTALLATION INSTRUCTIONS

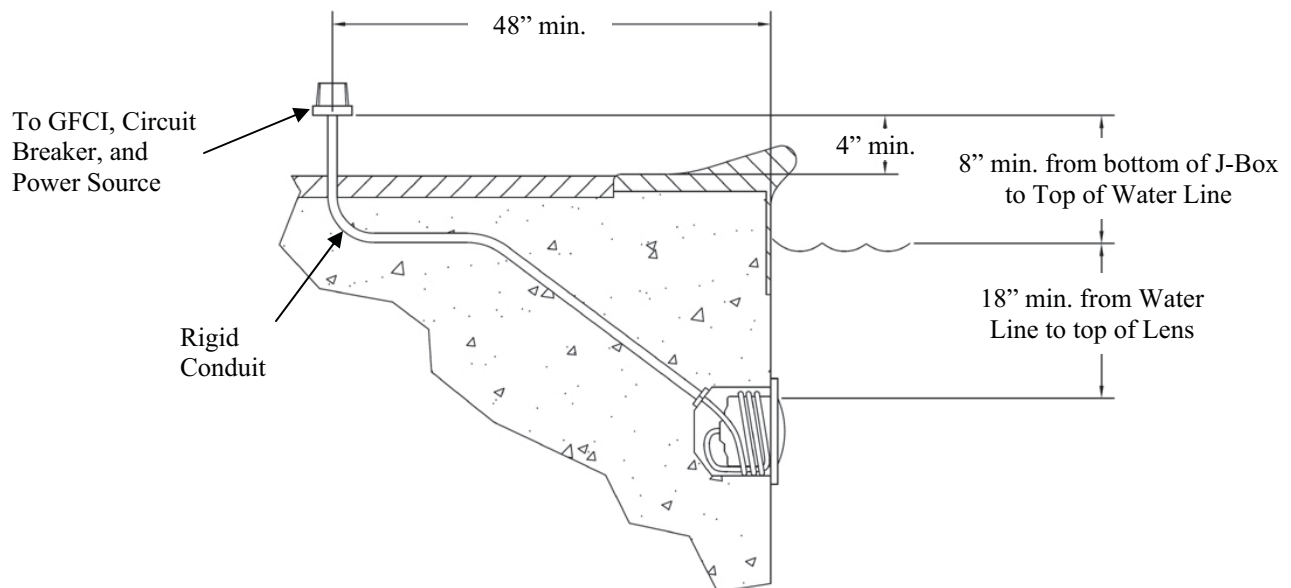
The illustration below shows the components that make up the FDS. For NEW installations, all components are supplied and utilized. For UPGRADING existing installations, the brass plate assembly below is not supplied and utilized.



The following pages show proper installation steps for NEW installations or UPGRADING existing installations.

FOR NEW INSTALLATIONS (FDS)

- STEP 1. Ensure that incoming power is DISCONNECTED at the circuit breaker BEFORE any electrical work is performed.
- STEP 2. Place the supplied Brass base plate in accordance with National and Local electrical codes and ordinances for junction box placement (see illustration below for proper location and minimum spacing requirements).
- STEP 3. The center conduit hub is equipped with a strain relief for a cord size of up to 10/3 AWG. Only use with underwater lights equipped with water resistant cords.
- STEP 4. Provisions for grounding terminals are provided for wires ranging from #16 AWG to #10 AWG. One equipment bonding terminal provision is provided and must be utilized for a #8 AWG insulated copper bonding wire. Special considerations should be taken when attaching stranded grounding and bonding conductors to the supplied grounding and bonding screws, such as ring terminals rated for such applications.
- STEP 5. Plug any unused conduit holes with the supplied conduit plugs.
- STEP 6. Place the supplied rectangular gasket between the Brass base plate and the FDS adapter (Important Note: For upgrade installations discussed on the next page, assure to replace any existing gaskets with the supplied FDS gaskets).
- STEP 7. There are three (3) wires in the FDS junction box for connection to underwater lights.
- Connect the WHITE wire to the common from the house common and from the common of the underwater light.
 - Connect the BLACK wire from the sub-panel connected to an appropriately rated circuit breaker.
 - Connect the RED wire to the LOAD wire of the underwater light.
- STEP 8. Place FDS cover and round gasket onto the FDS adapter and Brass base plate.
- STEP 9. Using the supplied screws, finger-tighten the screws from the FDS to the Brass base plate.
- STEP 10. After all screws have been finger-tightened, completely tighten all screws in a cross pattern so that the FDS will seal properly.



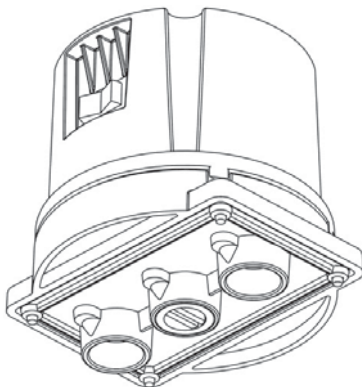
FOR UPGRADING EXISTING INSTALLATIONS (FDS-R)

- STEP 1. Ensure power is DISCONNECTED at the circuit breaker before any electrical work is done.
- STEP 2. Ensure that existing Junction Box and the underwater lights to be used with the FDS meet appropriate NEC requirements as well as local codes and ordinances.
- STEP 3. Remove the Junction Box cover.
- STEP 4. When upgrading from a Pentair 783106, follow “FOR NEW INSTALLATIONS” instructions from STEP 2 to STEP 9.
- STEP 5. When upgrading from a Thermocraft JBP57510, remove the FDS Adapter.
- STEP 6. Place the Adapter gasket onto the Thermocraft base plate.
- STEP 7. Wire the FDS according to STEP 7 in the “FOR NEW INSTALLATIONS” section.
- STEP 8. Place the FDS onto the Thermocraft base plate.
- STEP 9. Using the screw from the Thermocraft junction box, finger-tighten the screw FDS to the Thermocraft base plate.
- STEP 10. After all screws have been finger-tightened, completely tighten all screws in a cross pattern so that the FDS will seal properly.

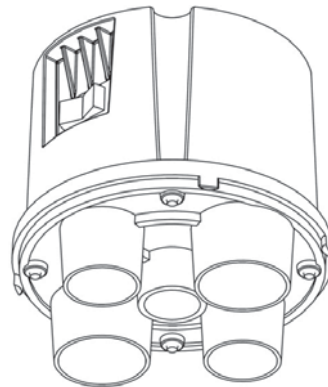
IMPORTANT:

If the FDS is used as an upgrade to an existing Junction Box, it can only be upgraded from a Pentair Junction Box style 78310600 or a Thermocraft Junction Box style JBP57510.

PENTAIR



THERMOCRAFT



FOR FDS-PS INSTALLATION

- STEP 1. Ensure that the two FDS units are installed within the 75' range of the remote transmitter.
 STEP 2. Check the label of the FDS units to determine which operates on Circuit 1 and Circuit 2.

Circuit 1, Channel 16

●	5	9	13
2	6	10	14
3	7	11	15
4	8	12	●

Circuit 2, Channel 16

1	5	9	13
●	6	10	14
3	7	11	15
4	8	12	●

- STEP 3. To complete the installation, follow instructions on pages 4 and 5 based on new installation or upgrading existing installation.

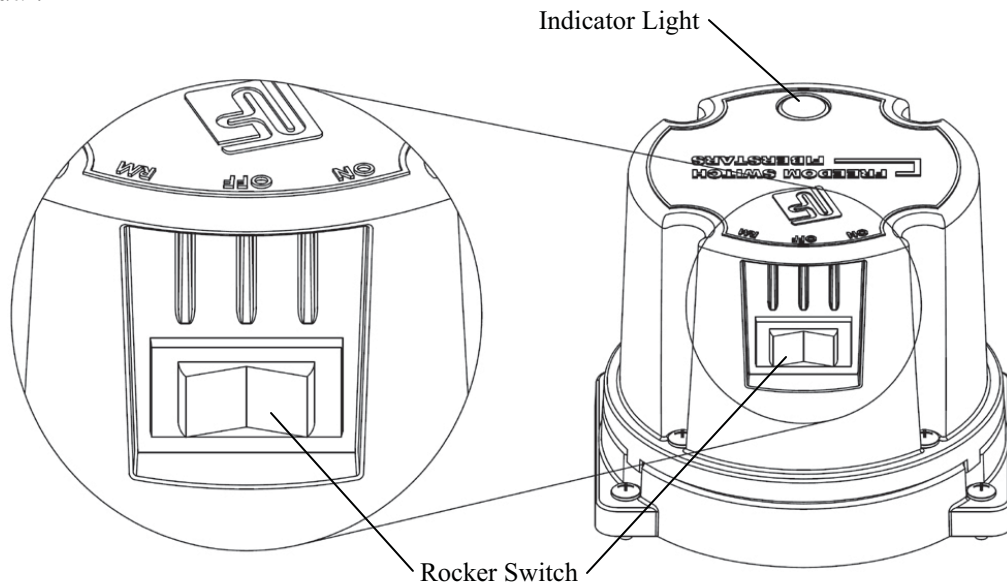
OPERATION INSTRUCTIONS

SWITCH OPERATION

The purpose of the switch is to test and trouble shoot the FDS.

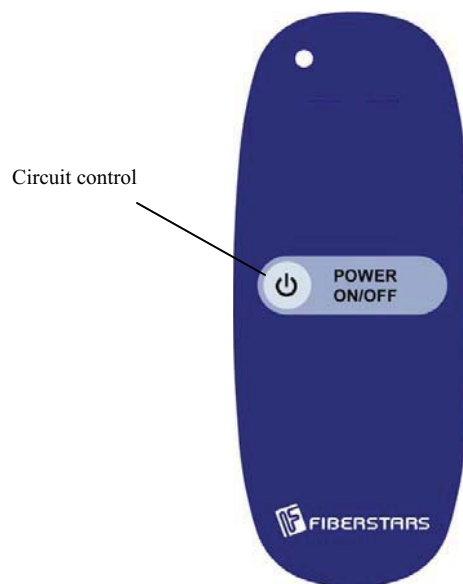
- In the ON position, the switch bypasses the FDS and turns on the light. When in the ON position, the Indicator Light should turn on at the same time.
- In the OFF position, the switch shuts off power to both the FDS and the Pool Light.
- In the Remote position, the switch allows for Remote operation with the Wireless Remote.

If none of the above operation works with the switch, please refer to the troubleshooting section of this manual.



WIRELESS REMOTE OPERATION

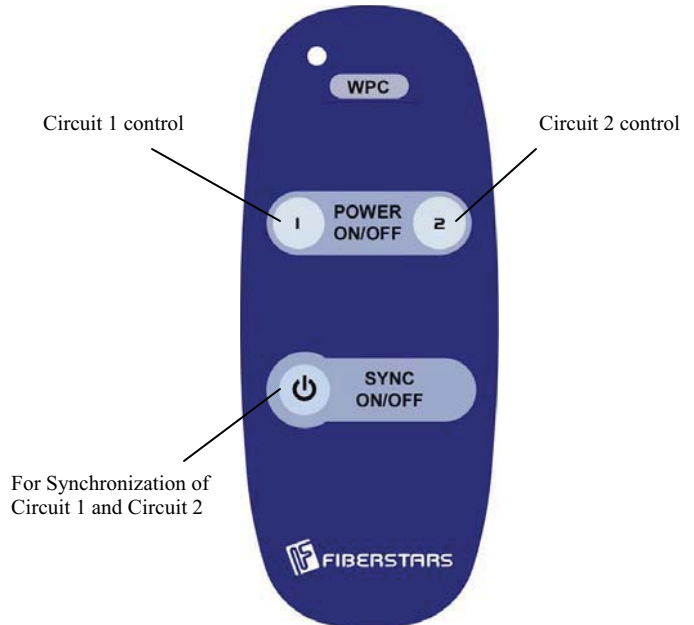
The POWER ON/OFF button controls the device connected to the Rocker Switch terminal. With each push of the button, the FDS toggles the device ON and OFF.



FDS-PS REMOTE OPERATION INSTRUCTIONS

WIRELESS REMOTE OPERATION

The POWER ON/OFF buttons control the individual unit with the corresponding circuits independently. With each push of the button, the FDS-PS toggles the individual units with corresponding circuits from ON to OFF and vice versa. For Synchronization operation, simply push the SYNC ON/OFF button. NOTE: If all circuits are off when the SYNC ON/OFF button is pressed, all circuits will be turned to ON. If any one of the circuits are in the ON state by the wireless remote, then when the SYNC ON/OFF button is pressed all circuits will be turned OFF and the SYNC ON/OFF must be pressed again to turn all circuits ON simultaneously.



CODE ADJUSTMENT

It may be necessary to change the transmission code on the FDS Transmitter to match that of the FDS unit. Check the FDS product label on the outside to see if the CHANNEL marking is the same as the transmitter. If they do not match, then follow the instructions below.

TRANSMITTER DIP SWITCHES – Remove all screws from rear of remote. Separate the bottom cover from the top cover. Take care as to not damage or lose the Rubber seal when separating the bottom cover.

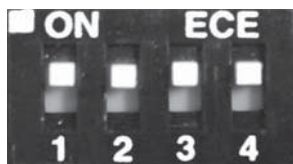
DIP SWITCH ADJUSTMENT – The four DIP switches have an ON and an OFF position. Changing just one DIP switch will change the code. Change the DIP switches in reference to the Channel Code to match that of the FDS.

Reassemble the bottom cover to the top cover carefully. Ensure that the bottom cover seats onto the top cover. Screw down the mounting screws until they are snug. Over tightening the screws may damage internal threading and may cause transmitter bottom not to seal properly. The example below shows DIP switch set to Channel 9.

DIP SWITCH	1	2	3	4
Channel 1	OFF	OFF	OFF	OFF
Channel 2	ON	OFF	OFF	OFF
Channel 3	OFF	ON	OFF	OFF
Channel 4	ON	ON	OFF	OFF
Channel 5	OFF	OFF	ON	OFF
Channel 6	ON	OFF	ON	OFF
Channel 7	OFF	ON	ON	OFF
Channel 8	ON	ON	ON	OFF
Channel 9	OFF	OFF	OFF	ON
Channel 10	ON	OFF	OFF	ON
Channel 11	OFF	ON	OFF	ON
Channel 12	ON	ON	OFF	ON
Channel 13	OFF	OFF	ON	ON
Channel 14	ON	OFF	ON	ON
Channel 15	OFF	ON	ON	ON
Channel 16	ON	ON	ON	ON

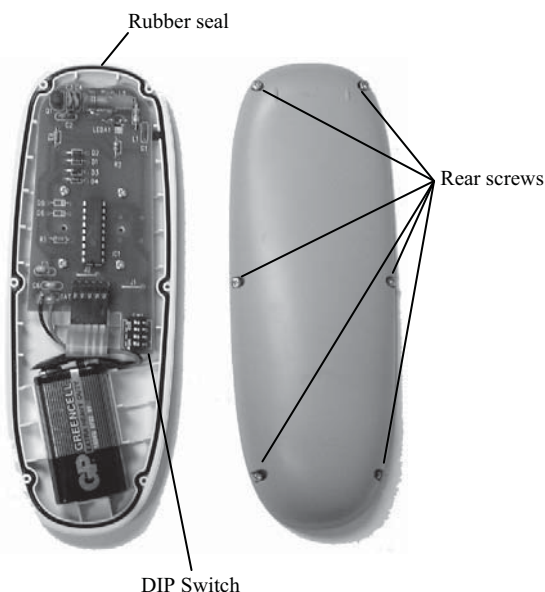
CHANNEL

1	5	9	13
2	6	10	14
3	7	11	15
4	8	12	16



DIP Switch

NOTE: Transmitters are factory set and shipped on channel 16.



TROUBLESHOOTING

REMOTE POSITION	STEP
Pool Light does not turn ON	1) Make sure Rocker Switch is in the REMOTE position. 2) Try button on Remote Control again.
Pool Light Does not come on but indicator light does.	3) If pool light still does not come ON but indicator light does – Pool light is bad. If indicator light fails to come on – go to STEP 4
MANUAL-ON-POSITION	
Pool light comes ON	4) Move Rocker switch to ON position. If pool light comes on, FDS or Remote Control is the problem. 4a) Replace batteries on Remote Control 4b) Verify code on outside of FDS and inside of Remote Control. REDO STEPS 1 & 2 if pool light again fails to come ON or have a qualified electrician replace FDS unit.
MANUAL-ON-POSITION	
Pool light does not come ON and indicator light does not come ON.	1) Test GFCI – RESET 2) Problem with electrical service. Call a qualified electrician for service work.